Neurocysticercosis (NCC) is the most common parasitic disease of the brain caused by accidental ingestion of eggs of T. solium. Specially in developing nations like Nepal, the burden of neurocysticercosis is high due to poor sanitation and low socio-economic status. Computerized tomography scan (CT-scan) and Magnetic Resonance Imaging (MRI) techniques are most commonly used tools of investigation, which often show the lesion as ring enhancing cyst in the brain.9,4 Other serological tests such as Enzyme linked immunosorbent assay (ELISA) and/or Enzyme linked immunoelectrotransfer blot (EITB) further help to confirm diagnosis. 3,7 Seizure is the most common presentation of the disease but it may present with features of raised ICP such as headache or even neuropsychiatric disorders such as psychosis.2,5,8 Here, we are going to report a case of neurocysticercosis, who presented with features of acute psychosis.

Neurocysticercosis is the parasitic disease caused by ingestion of egg of T. solium. The disease presents with spectrum of clinical manifestations like seizure, headache, neurological deficit and psychiatric symptoms such as psychosis. Even though most commonly patients of neurocysticercosis present with seizure, rarely, it may produce symptoms of neuropsychiatric disorder such as psychosis. Here, we are going to report a case of a patient who presented with features of acute psychosis. Later on with diagnostic imaging like CT and MRI, he was diagnosed as a case of multiple neurocysticercosis. He was then managed with anti psychotics, AEDs, Anti-helminthic drugs and steroids.

Key Words: Albendazole, cysticercosis, neurocysticercosis, psychosis, Taenia solium
Case Report

A 51-year-old male presented to emergency department with complaint of abnormal behavior, irrelevant talk, irritability, episodes of anger, poor eye contact and continuous speech at increased rate, rhythm and intensity. Initially the patient was treated with inj. Midazolam followed by Inj. Lorazepam. Once the patient was sedated and calm, his CT brain (both plain and enhanced) was obtained which revealed multiple calcified lesions suggestive of NCC (Figure 1). The patient was admitted in Intermediate Care Ward (ICW) for close monitoring and treatment. His other blood investigations were sent which were normal. The patient’s MRI brain was obtained which also revealed neurocysticercosis of different stages as shown in Figure 2. The EITB (Enzyme-Linked Immunotranser blot) test was done which was positive, confirming the diagnosis.

Discussion

Neurocysticercosis is caused by the cyst, which is the larval stage of pork tapeworm called Tinea Solium. It enters the central nervous system by ingestion of its eggs from contaminated hand, water or food. In developing countries like Nepal, neurocysticercosis is the most common parasitic disease of the central nervous system and is also the main cause of acquired epilepsy. The disease is endemic in countries with poor sanitation; however it is increasingly being reported in developed countries as well due to globalization and immigration.

Figure 2: MRI Brain showing multiple ring enhancing lesions, suggestive of neurocysticercosis

He was treated with oral anti-psychotic medications and intravenous sedation whenever needed. Intra-ocular cyst was ruled out after evaluation by an ophthalmologist. The multiple Neurocysticercosis was then treated with steroids and Albendazole (400mg twice a day, advised for 4 weeks). During his stay, he had 1 episode of Generalized Tonic Clonic Seizure (GTCS), for which Sodium Valporate was started. After few days of stay, patient recovered completely and therefore discharged with oral antipsychotic and antiepileptic medications.

Conclusion

Although seizure is the most common presentation of neurocysticercosis, it may manifest with varieties of symptoms. One such rare presentation is acute psychosis. Therefore, clinicians should bear in mind that the underlying organic cause for acute psychosis may be neurocysticercosis, especially in a country like Nepal where its prevalence is relatively high.

Hence, neurocysticercosis should be kept in the differential diagnosis if a patient presents with psychosis.
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References